ACCESSION NR: AT4021264 S/2892/63/000/002/0146/0151

AUTHOR: Zolotukhin, V. G., Doroshenko, G. G., Yefimenko, B. A.

TITLE: The registration efficiency of a neutron scintillation detector

SOURCE: Voprosy* dozimetrii i zashchity* ot izluchenly, no. 2, 1963, 146-151

TOPIC TAGS: scintillation detector, neutron detector, neutron absorption, Monte Carlo method, scintillation, carbon, Taylor series, hydrogen

ABSTRACT: Accurate data on detector characteristics, such as the shape of the spectral line and the registration efficiency of scintillation detectors with organic crystals is not as yet available. Only a number of approximate formulas for the calculation of registration efficiency of counters is available. These formulas take into consideration: 1) the single stage scattering in hydrogen, 2) the single stage scattering in hydrogen and carbon, and 3) the single stage scattering in carbon and the single and double stage scattering in hydrogen. The authors [Neutron Dosimetry (Proceedings of a Symposium on neutron detection, dosimetry and standardization, Harwell, 10-14 December, 1962), v. 1, 597, International Atomic Energy Agency, Vienna, 1963] have developed a semi-analytic Monte-Carlo method for calculating the amplitude distribution of pulses and the counter

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ACCESSION NR: AT4021264

effectiveness of a detector with an organic scintillator. This method proves to be highly effective and acquires high calculation precision with moderate machine time consumption. All interaction processes of neutrons with nuclei of the scintillation substance are taken into consideration, including the marginal effects on the walls of the scintillator. These are presented in a graph. The paper also includes a table of registration efficiency for a 30 X 30 mm crystal. Orig. art. has: 3 formulas, 3 figures, and 1 table.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Physics and Engineering Institute)

SUBMITTED: 00 DATE ACQ: 06Apr64 ENCL: 00

SUB CODE: MP, PH NO REF SOV: 002 OTHER: 003

Card 2/2

ZOLOTUKHIN, V.G.; DOROSHENKO, G.G.; YEFIMENKO, B.A.

Calculation of pulse amplitude distributions and counting efficiencies for a fast neutron scintillation detector. Atom. energ. 15 no.3:194-200 S '63. (MIRA 16:10)

(Scintillation counters)

DOROSHENKO, G. G.; YEFIMENKO, B. A.; ZOLOTUKHINA, V. G.

"A Method of Calculating Efficiencies for the Investigation of Continuous Spectra of Fast Neutrons."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

MIFI (Moscow Engineering Physics Inst)

YEFIMENKO, B. A.

L 45987-65 EWT(m) Pob ' DIAAP DM

ACCESSION NR: AP5009115 S/0089/65/018/003/0251/0252

AUTHOR: Yermakov, S. M.; Zolotukhin, V. G.; Kukhtevich, V. I. Matusevich, Ye. S.; Yefimenko, B. A.

TITLE: Spatial and energy distribution of scattering Gamma radiation from a unidirectional source in an infinite air medium

SOURCE: Atomnaya energiya, v. 18, no. 3, 1965, 251-252

TOPIC TAGS: reactor Gamma radiation, spatial distribution, energy distribution, Gamma ray scattering

ABSTRACT: The field of the scattered gamma radiation was investigated both by the Monte-Carlo method and experimentally. The adaptation of the Monte-Carlo calculation to the present problem was discussed by the authors elsewhere (Voprosy fiziki zashchity reaktorov [Problems of Reactor Shielding], Gosatomizdat, 1963, p. 171). The energy distributions were calculated for orientation angles of the unidirectional source ranging from 2—180° (10 values). Distributions are also calculated for the following: (1) source-detector distance of 16 meters and initial energies 0.5, 12.5, 3.0, and 7.0 MeV, (2) average energy 1.25 MeV at distances 5, 16, and 30 meters, (3) distance of 16 m and an average energy 1.25 MeV (from a Co^{60} source) at angles 60, 90, 120, and 150°. The values of the distribution function

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L 45587-65

ACCESSION NR: AP5009115

0

were also measured for an infinite air medium by means of a scintillation spectrometer. Some of the results are indicated in Fig. 1 of the Enclosure. The various calculation errors are estimated. Orig. article has: 2 figures.

ASSOCIATION: None

SUBMITTED: 06Mar64 ENCL: 01 SUB CODE: NP

NR REF SOV: 000 OTHER: 000

Card 2/3

AUTH: [illegible]; Yefimenko, B. A.; [illegible]; Kolevatov, Yu. A.; Kukhtevich, V. I.

TITLE: Spatial and energy distribution and dose rate of gamma radiation of unidirectional and isotropic sources of Co-60 at the ground-air interface

SOURCE: Atomnaya energiya, v. 18, no. 4, 1965, 416-418

TOPIC TAGS: gamma radiation, spatial distribution, energy distribution, unidirectional source, isotropic source, [illegible] air ground interface

ABSTRACT: The article presents the results of measurements and [illegible] spatial and energy distributions of [illegible]

Card 1/3

L 58756-65
ACCESSION NR: AP5012484

30, and 53 meters) above ground. The measurement and the calculations were carried out for two angles (0° and 90°) of orientation of the unidirectional source. The source was in the form of a sphere [illegible] meters in diameter, covered with a shadow shield with a [illegible] angle 5°. The detector was a scintillation spectrometer with NaI(Tl) [illegible] meters and height 0.04 meters. The variant of the Monte-Carlo [illegible] and the relatively large [illegible] and measured spatial and energy distributions of scattered gamma

Card 2/3

L 58736-65
ACCESSION NR: AP5012484

an isotropic source are also in good agreement. The authors thank Yu. I. Bublik, and K. G. Ivanov for help with the experiment.
Original article has: 3 figures, 2 formulas, and 2 tables.

ASSOCIATION: [illegible]

SUBMITTED: 13Aug64 ENCL: 00 SUB CODE: NP

NR REF SOV: 001 OTHER: 002

Card 3/3

BUBLIK, Yu.I.; YERMAKOV, S.M.; YEFIMENKO, B.A.; ZOLOTUKHIN, V.G.; PETROV, E.Ye.

Gamma-ray dose from a unidirectional source near the soil-air interface.
Atom. energ. 18 no.6:628-629 Je '65. (MIRA 18:7)

L 4031-66 EWT(m) DIAAP DM
ACCESSION NR: AP5027960 UR/0089/65/019/001/0051/0056

AUTHOR: Doroshenko, G. G.; Zolotukhin, V. G.; Yefimenko, B. A. 35 B

TITLE: On matrix treatment of data obtained by fast neutron single crystal scintillation spectrometer 19

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 51-56

TOPIC TAGS: fast neutron, neutron spectrum, mathematic matrix, single crystal, crystal counter, spectrometer, Monte Carlo method

ABSTRACT: Matrices are calculated for the treatment of results of measurements of fast-neutron spectra. The counting efficiencies of a stilbene crystal (height 30 mm and diameter 30 mm) in the energy range 1 to 18 Mev taking into account energy resolution were calculated on the basis of the line shapes K (E sup p, E), found by the Monte-Carlo method for 55 values of the initial neutron energy. Calculations were performed for 4 values of the resolution parameter (standard deviation). The direct and inverse transposed matrices are presented. Orig. art. has 3 formulas, 3 graphs, and 3 tables.

ASSOCIATION: none
SUBMITTED: 22Sep64 ENCL: 00 SUB CODE: NP, MA
NO REF SOV: 007 OTHER: 007 NA
Card 1/1 BP

L 4393-66 EWT(m) DIAAP DM

ACC NR: AP5028436 SOURCE CODE: UR/0089/65/019/001/0056/0059

AUTHOR: Zolotukhin, V. G.; Doroshenko, G. G.; Yefimenko, B. A.

36
13

ORG: none

TITLE: Analysis of the systematic error due to differentiation of apparatus spectra measured by fast neutron single crystal scintillation spectrometer 19

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 56-59

TOPIC TAGS: fast neutron, neutron spectrum, neutron spectroscopy, single crystal, scintillation spectrometer, particle scatter, Monte Carlo method, approximation, differentiation

ABSTRACT: The error introduced in the line shape of neutron spectra obtained in a neutron-proton recoil scintillation spectrometer due to the use of the differentiation method in the single scattering approximation is considered. Monte-Carlo calculations using this approximation were performed. A histogram of the line shape of a detector with a cylindrical stilbene crystal is given for incident neutron energies of 1.0 and 4.15 Mev, and the deviation of the derived differential spectra from the ideal values is shown as a function of neutron energy from 1 to 5 Mev for 1.05- and 2.05-Mev protons, for three different sizes of cylindrical stilbene crystal. It is found that for slowly changing spectra the errors associated with line-shape distortion are within a few percent, but for quickly changing neutron spectra, the error of the differentiation method can reach significant values. Orig. art. has: 4 figures, 4 formulas. [NA]

Card 1/2 UDC: 539.16.08:539.125.5

L 4393-66

ACC NR: AP5028436

SUB CODE: NP, MA, SS / SUBM DATE: 22Sep64 / ORIG REF: 005 / OTH REF: 003

Card 2/2

L 27477-66 EWT(1)/T IJP(c)

ACC NR: AT6008420 SOURCE CODE: UR/3158/65/000/021/0001/0012

AUTHOR: Zolotukhin, V. G.; Kutuzov, A. A.; Broder, D. L.; Kham'yanov, L. P.; Yefimenko, B. A.; Shilkin, A. S.

ORG: None

TITLE: Analysis and generalization of the correlation method of measuring the particle lifetime distribution in a physical system

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 21, 1965, Analiz i obobshcheniye korrelyatsionnogo metoda izmereniya raspredeleniya vremeni zhizni chastits v fizicheskoy sisteme, 1-12

ABSTRACT: The authors present a complete statistical analysis of the correlation method of measuring the distribution of the lifetime of particles in a linear physical system. The method is reduced to a determination of the mutual correlation function between a pseudorandom signal used to modulate the intensity of the measured particles coming from the source, and the counting rate of the detectors. It is shown that the statistical accuracy of the method depends both on the off-duty factor of the modulating random signal and on the presence of a noise back-

Card 1/2

L 27477-66
ACC NR: AT6008420 0

ground against which the measurements are made. In particular, it is shown that the conclusions made by T. E. Stern et al. (J. of Nucl. An., p.A/B, 16, 499, 1962) that the use of random (or pseudorandom) excitation can completely reduce the measurement time compared with the classical method (ordinary periodic excitation) is valid only when there is an appreciable background. When there is no background, on the average the statistical accuracy of the classical and correlation methods is approximately the same. A new method of pseudorandom modulation of the particle source is proposed, to take advantage of this fact. If the modulation is made coherent with the background noise, then it can be readily shown that the fast component of the background can be readily eliminated in the same manner as in the classical method, and the slow component can be eliminated by suitable choice of the off-duty factor of the modulating signal. This type of statistical modulation prevents loss of the peak value of the modulated intensity and thus permits the use of the peak power of the source and retain the favorable advantages of the correlation method. Orig. art. has: 6 figures and 13 formulas.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 002

Card 2/2 BLG

YEFIMENKO, G.G.

The most important stage in the life of institutions for higher education. Izv.vys.ucheb.zav.; tekh.leg.prom. no.6:3-5 '58.
(MIRA 12:4)

1. Zamestitel' ministra vysshego obrazovaniya USSR.
(Education, Higher)

YEFIMENKO, G.G. [Iefymenko, H.H.]

A problem of national importance. Nauka i zhyttia 8 no.11:1-5 N '58. (MIRA 13:5)

1. Zamestitel' ministra vysshego obrazovaniya USSR.
(Universities and colleges)

LOGHINOV, V.I. [Loginov, V.I.]; EFIMENKO, G.G. [Yefimenko, G.G.]

Peculiarities of the regulation of the thermal state of methane blast furnaces. Analele metalurgie 16 no.4:18-26 O-D '62.

YEFIMENKO, G.G., kand.tekhn.nauk; GINZEL'FARB, A.A., knad.tekhn.nauk;
Prinimali uchastiye: POLTAVETS, V.V., inzh.; GRISHKO, V.A., inzh.;
NEMCHENKO, S.Z., inzh.; OSTAPENKO, V.A., tekhnik; POBUDINSKIY, L.I.,
tekhnik; KATSMAN, V.Kh., tekhnik; KARMAZIN, A.G., tekhnik

Regulating blast furnace operations by fluctuations of fas pressure and the distribution of matorials in the hearth bottom. Stal' 22 no.10:876-880 0'62. (MIRA 15:10)

(Blast furnaces)

YEFIMENKO, G.G., inzh.; VOYTANIK, S.T., inzh.; YEFIMOV, S.P., inzh.; MACHKOVSKIY, A.I., inzh.; RUDKOV, A.K., inzh.; RUDKOVSKIY, G.I., inzh.; Prinimali uchastiye: KOVALEV, D.A.; GOTOVTSEV, A.A.; VASIL'YEV, G.S.; ZEMLYANOY, A.A.; KUKUSHKIN, S.N.; MATYNA, M.G.; LOVCHANOVSKIY, V.A.; KRAMNIK, T.A.; NECHESOVA, N.I.; MARTYNENKO, V.A.; KURAKSIN, D.I.; LETYAGIN, N.L.

Intensifying the sintering process by the use of a special charge wetting device. Stal' 23 no.12:1061-1064 D '63. (MIRA 17:2)

1. Dnepropetrovskiy metallurgicheskiy institut, zavod im. Dzerzhinskogo i Yuzhnyy gornoobogatitel'nyy kombinat. 2. Dnepropetrovskiy metallurgicheskiy institut (for Kovalev, Gotovtsev, Vasil'yev, Zemlyanoy, Kukushkin). 3. Zavod im. Dzerzhinskogo (for Matyna, Lovchanskiy, Kramnik, Nechesova). 4. Yuzhnyy gornoobogatitel'nyy kombinat (for Martynenko, Kuraksin, Letyagin).

YEFIMENKO, G.G.(Dnepropetrovsk); KOVALEV, D.A. (Dnepropetrovsk)

Wetting processes during the sintering of iron ores and concentrates. Izv. AN SSSR. Met. no.1:11-17 Ja-F '65. (MIRA 18:5)

YEFIMENKO, G.G.; VOYTANIK, S.T.

Mechanism of modulizing the sintering charge. Izv.vys.ucheb.zav.; chern.met. 8 no.6:50-53 '65. (MIRA 18:8)

1. Dnepropetrovskiy metallurgicheskiy institut.

L 22139-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6012947 SOURCE CODE: UR/0133/65/000/007/0585/0589

AUTHOR: Gotlib, A. D. (Doctor of technical sciences); Gimmel'farb, A. A. (Candidate of technical sciences); Yefimenko, G. G. (Candidate of technical sciences); Lapa, A. M. (Candidate of technical sciences); Polovchenko, I. G. (Candidate of technical sciences); Grishko, V. A. (Engineer); Chechuro, A. N. (Engineer); Kharchenko, N. M. (Engineer)

ORG: Dnepropetrovsk Metallurgical Institute (Dnepropetrovskiy metallurgicheskiy institut); Plant im. Dzerzhinskiy (Zavod)

TITLE: Automatic control of the thermal state of a blast furnace

SOURCE: Stal', no. 7, 1965, 585-589

TOPIC TAGS: automatic control, blast furnace, algorithm, digital computer

ABSTRACT: The currently used methods for controlling the thermal state of a blast furnace have considerable deficiencies. There is considerable delay in receipt of data for control changes. Control should be performed directly on the change in thermal and reductive work of the gases, depending on their distribution in the charge and their movement through it. Theoretical principles for thermal control by composition of flue gas have been developed: a) minimum usage of coke for smelting cast iron of a given composition under given conditions of charge material and melting is defined, b) these parameters of the process are directly maintained at a level necessary to produce iron with minimum deviation from the given composition when all heat reserves of the process are used.

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On the basis of these considerations, an algorithm for control of the thermal state of a furnace was developed by the Lisichan Scientific Research Institute for Computers for use in the "Sovetchik Master" (SM-2) computer at blast furnace A of the plant imeni Dzerzhinskiy. This device is a digital computer which performs the mathematical and logical processing of input information on the basis of this algorithm.

During an 18-day trial period in May and a 36-day trial period in October-November, 1963, the computer recommended 108 changes in coke quantity and 144 changes in blast temperature. The results were positive; the thermal state of the furnace was mainly disrupted only when the recommendations were not fulfilled and during changes in loading without recommendation by the computer.

The recommendation control considerably increased consistency in output composition. Coke usage was decreased by 2.5%. The algorithm can be used only when the furnace is under regular use. Engineer S. Z. Nemchenko, Engineer A. S. Skorobagatov, Engineer M. I. Obuvalin, Engineer T. I. Slamchinskaya, Engineer A. M. Yunchik, Engineer Yu. M. Samarets, and Engineer D. S. Kalashnikov participated in the work. Orig. art. has: 3 figures and 2 tables. [JPRS]

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 004

DEMBOVETSKIY, V.P.; YEFIMENKO, G.M.

Attempt to determine the effect of certain factors on the composition of blas furnace gas by the method of mathematical analysis. Izv.vys. ucheb.zav.; chern. met. 8 no.4:30-39 '65.

(MIRA 18:4)

1. Sibirskiy metallurgicheskiy institut.

ZHEREBIN, B.N., prof.; KHROMOV, V.A., kand. tekhn. nauk; MISHIN, P.P., inzh.; YEFIMENKO, G.M., inzh.; OBSHAROV, V.M., inzh.; RAYEV, Yu.O., inzh.

Automatic control of the distribution of blast to blast furnace tuyeres at the Kuznetsk Metallurgical Combine. Stal' 23 [i.e. 24] no.4:292-296 Ap '64. (MIRA 17:8)

DEMBOVETSKIY, V.P.; YEFIMENKO, G.M.; OBSHAROV, V.M.; ZHIGULEV, P.G.

Distribution of the temperature of the gas flow in a charge layer during various charging conditions. Izv. vys. ucheb. zav.; chern. met. 7 no.8:35-39 '64. (MIRA 17:9)

1. Sibirskiy metallurgicheskiy institut.

S.[illegible], S.M., kand.khimicheskikh nauk; FEN'KOVA, Ye.I.; YAN[illegible]KO, I.A.; EPSHTEYN, T.B.

Insecticide powders, duts and granulated insecticides. Zhur. VKHO 5 no. 3:312-317 '60. (MIRA 14:2)
(Insecticides)

SHOGAM, S.M.; VOL'FSON, L.G.; YEFIMENKO, I.A.

Method for determining heptachlor in a technical product. (MIRA 15:7)
[Trudy] NIUIF no.171:49-51 '61.
(Heptachlor)

SHOGAM, S.M.; YEFIMENKO, I.A.; NIKIFOROVA, N.M.; MEL'NICHENKO, E.L.

Chromatographic analysis of heptachlor. Zhur.anal.khim. 17 no.2:260-262 Mr-Ap '62. (MIRA 15:4)

1. Nauchnyy institut po udobreniyam i insektofungisidam imeni Ya.V. Samoylova, Moskva.
(Heptachlor) (Chromatographic analysis)

L 3549-66 FSS-2/EWT(1)/EWA(d)/T/EED(b)-3/EWA(c) IJP(c)
ACCESSION NR: AP5024434 UR/0286/65/000/015/0146/0146

AUTHORS: Nerobkov, V. P.; Belevich, G. M.; Shapkin, G. A.; Yefimenko, I. I.; Ulitskiy, A. R.

TITLE: Photocopying equipment for contact printing of copies. Class 57, No. 173607

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 146

TOPIC TAGS: photographic equipment, photographic printer

ABSTRACT: This Author Certificate presents photocopying equipment for contact printing of copies from various negatives onto one common backing for bulk preparation of superimposed negatives or printed circuits. To increase the productivity and to improve the production quality, a negative mounting unit, a manipulator, a preliminary mounting unit, a unit for precise superposition of negative and backing contour, and an illumination unit for exposure are mounted in a single case (see Fig. 1 on the Enclosure). The negative mounting unit is in the form of several revolving coordinate tables whose position is fixed in the range of the superposition unit and in the exposure zone. The manipulator is mounted on a horizontal plate which moves on prismatic guides into the zone of preliminary

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L 3549-66
ACCESSION NR: AP5024434

backing mounting and is provided with a coordinate-rotary table movable in any direction. This table is connected by a ball support to a magnetic table intended for fastening an auxiliary table-satellite. All of the units of the photoequipment are connected to one common control unit. To increase the accuracy of superimposing negative and backing contour by two points removed from each other with a minimum expenditure of time, the precise superposition unit is provided with a two channel optical system. Two different portions of the superimposed surface are visible in the field of view of the ocular. Orig. art. has: 1 diagram.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i organizatsii proizvodstva (Central Scientific Research Institute of Technology and Production Organization)

SUBMITTED: 01Apr64 ENCL: 01 SUB CODE: ES

NO REF SOV: 000 OTHER: 000

Card 2/3

L 3549-66
ACCESSION NR: AP5024434 ENCLOSURE: 01

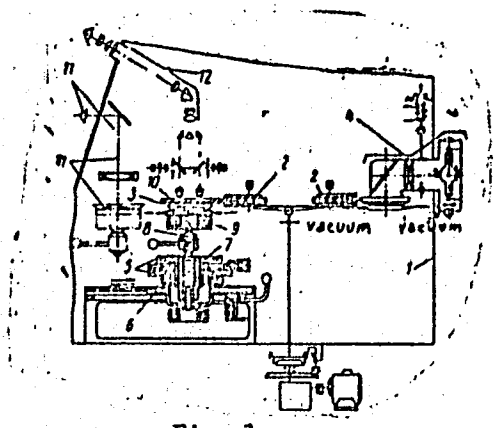

Fig. 1.

1- photoequipment case; 2- rotary coordinate tables of negative mounting unit; 3- superposition unit; 4- exposure unit; 5- manipulator; 6- horizontal plate with prismatic guides; 7- manipulator coordinate-rotary table; 8- ball support; 9- magnetic table; 10- table-satellite; 11- preliminary backing unit; 12- precise superposition unit

Card 3/3

DADENKOVA, M.N.; BOYKO, I.I.; YEFIMENKO, I.N.

Molecular scattering of light and its relation to the structure of polymer solutions placed in an electric field. Ukr. fiz. zhur. 9 no. 5:559-563 My '64. (MIRA 17:9)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya, Kiyev.

YEFIMENKO, I.N. (Khar'kov); VERKHOVSKIN, I.F. (Khar'kov); MATYUSHENKO, N.N. (Khar'kov); Prinimali uchastiye SHEZHKO, I.A.; POLTAVTSEV, N.S.

Supplementary area of the constitutional diagram tungsten - silicon. Izv. AN SSSR. Met. no.4:163-167 Jl-Ag '65. (MIRA 18:8)

YEFIMENKO, I.Ye., gornyy inzh.

Crosscutting by the long hole blasting method. Ugol' 35 no. 12:21 D '60. (MIRA 14:1)

1. Shakhta "Yagunovskaya."
(Kuznetsk Basin--Coal mines and mining) (Blasting)

5.4110
15.2220

67665
SOV/126-8-6-13/24

AUTHORS: Matyushenko, N.N., Yefimenko, L.N. and Solopikhin, D.P.

TITLE: Existence of the Silicide W_3Si

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 6, pp 878-880 (USSR)

ABSTRACT: The authors point out that the question of the existence of W_3Si has not been settled (Ref 2,3) in spite of the considerable volume of published X-ray data on the silicides of high-melting VI group metals. The conversion of higher into lower molybdenum or tungsten silicides which occurs when the surface-silicided metals are heated to about 1700°C is accomplished with the participation of a chemical reaction governed by redistribution of s- and d-electrons in the metals. The authors give this reaction in terms of the number of molecules in the unit cell and using published (Ref 1) X-ray data, calculate the volume percentage of the phases (Table 1). From considerations of isomorphism the authors calculated the W_3Si lattice parameter $a = 4.910 \pm 0.01$ Å and prepared specimens in which this phase could be observed metallographically and by X-ray diffraction. Tungsten (99% W) cylinders 20 mm in diameter were saturated to a depth of about

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Existence of the Silicide W_3Si

100 microns, with silicon (99% Si) in a neutral atmosphere to give two phases: WSi_2 and W_5Si_3 (Fig 1). On heating to 1700°C in air W_3Si was found at the W/W_5Si_3 boundary (Fig 2), from which a diffraction pattern (Fig 3) was obtained. This phase had a texture due to that of the tungsten. The authors compare (Table 2) the experimental and calculated crystallographic values for W_3Si. The lattice parameter was found to be $a = 4.910 \pm 0.005$ Å, the X-ray density $d = 16.2$ g/cm^3. There are 3 figures, 2 tables and 3 references, 2 of which are Soviet and 1 English.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR
(Physico-Technical Institute, AS UkrSSR)

SUBMITTED: June 26, 1959

YEFIMENKO, L.N.; VERKHOROBIN, L F.; SHVYDCHENKO, A.G.

Oxidation of lower tungsten and molybdenum silicides. Izv. AN SSSR. Neorg. mat. 1 no.11:1911-1916 N '65. (MIRA 18:12)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov. Submitted May 25, 1965.

ACCESSION NO: AP4009390 S/0126/63/016/006/0931/0933

AUTHORS: Yefimenko, L. N.; Nechiporenko, Ye. P.; Pavlov, V. N.

TITLE: Oxidation of tungsten disilicide

SOURCE: Fizika metallov i metallovedeniye, v. 16, no. 6, 1963, 931-933

TOPIC TAGS: tungsten disilicide, oxidation, thermocouple, PtRh PtkRh thermocouple, oxidation curve

ABSTRACT: Oxidation of tungsten disilicide has been investigated. The process was conducted in air at a temperature range of 650-1500C. Samples 20 x 10 x 0.1 mm were produced in a vacuum of 5×10^{-5} mm Hg by filling tungsten plates with powdered silicon. Nichrome elements were used to produce temperatures up to 1000C, and silicon carbide elements were used for higher temperatures. The temperatures were measured with a PtRh-PtkRh thermocouple and were kept constant. In the course of oxidation the samples were weighed with an accuracy of ±0.01 mg. Below 1000C the experiments were conducted uninterruptedly; above 1000C they were interrupted due to the formation of dense film on the surface of the plates. As can be seen from Fig. 1 of the Enclosure the rate of oxidation curves changed shape at various

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ACCESSION NO: AP4009390

temperatures. Up to 1000C the weight increase followed the formula $W = kt^m$, where W is the weight change per unit area (in mg/cm^2), and t is the time of oxidation (in minutes). At 1150-1250C the curves assume a descending trend because at these temperatures WO_2 becomes extremely volatile. A dense, glassy coating of SiO_2 forms at 1300C, and the process of oxidation progresses logarithmically. The formation of such a coating is described by R. Kiffer and F. Benesovsky (Symposium on Powder Metallurgy, Iron. a. Steel Inst. prep. gr., IV, 1953, 40). The logarithmic progress follows the expression $W = k_1 \ln(k_2 t + k_3)$, where k_1, k_2, and k_3 are determined by the method described by A. Champion and T. White (J. Inst. Metals, 1949, 75, 375). Metallographic and x-ray investigation disclosed the presence of W_5Si_3 under the glassy coating on WSi_2 oxidized for a long time at high temperatures. Orig. art. has: 2 graphs, 3 formulas, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR(Institute of Physics and Technology AN UkrSSR)

SUBMITTED: 20Mar63 DATE ACQ: 03Feb64 ENCL: 01

SUB CODE: PH, CH NO REF SOV: 002 OTHER: 003

Card 2/3

(A) L 11002-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP5028721 SOURCE CODE: UR/0363/65/001/011/1911/1916

AUTHOR: Yefimenko, L. N.; Verkhorobin, L. F.; Shvydchenko, A. G.

ORG: Physicotechnical Institute, Academy of Sciences, UkrSSR, Kharkov (Fiziko-tekhnicheskiy institut Akademii nauk UkrSSR)

TITLE: Oxidation of lower tungsten and molybdenum silicides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 11, 1965, 1911-1916

TOPIC TAGS: tungsten compound, molybdenum compound, silicide, oxidation kinetics, silica, PHASE COMPOSITION, METAL OXIDATION

ABSTRACT: The oxidation of W_5Si_3 and Mo_5Si_3, obtained by the vacuum silicidizing of tungsten and molybdenum, was carried out in air in the 500-1000°C temperature range. The structure and phase composition of the oxides were determined by metallographic and x-ray methods. The two silicides displayed a similar behavior during oxidation: in both cases, oxides are formed by the metal and silicon. Because the metal oxide is adjacent to the silicide--whereas SiO_2 is found on the surface--it is postulated that atmospheric oxygen penetrates to the surface where it forms SiO_2. Differences in the oxidation kinetics of the two silicides are due to the difference in the vapor pressure of WO_3 and MoO_3. It is noted that the lower W and Mo silicides are much

Card 1/2 UDC: 546.78'281 + 546.77'281

L 11002-66
ACC NR: AP5028721

less stable to oxidation than the W and Mo disilicides. Orig. art. has: 4 figures, 2 tables.

SUB CODE: 07,11/ SUBM DATE: 25May65/ ORIG REF: 005/ OTH REF: 004

Card 2/2

L 9441-66 EWT(m)/EWP(k)/EWP(z)/EWP(b)/EWP(e)/EWP(t) IJP(c) JD/JG/WB

ACC NR: AP5027137 SOURCE CODE: UR/0126/65/020/004/0531/0534

AUTHOR: Nechiporenko, Ye. P.; Yefimenko, L. N.; Matyushenko, N. N.; Verkhorobin, L. F. 44,55

ORG: Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR) 44,55

TITLE: On disintegration of tungsten disilicide with oxidation in air

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 4, 1965, 531-534

TOPIC TAGS: tungsten, tungsten disilicide, metal oxidation

ABSTRACT: Specimens of tungsten disilicide prepared from 99.9%-pure tungsten and silicon powders either by hot compacting at 1700C, by cold compacting and sintering in an argon atmosphere at 1000C for 1 hr, or by siliconizing of tungsten in a vacuum of 10^{-5} mm Hg at 1250C had a porosity of 3, 40, or 0%, respectively. All specimens were tested for oxidation behavior in air at 600—1100C. Hot compacted, and cold compacted and sintered specimens gradually disintegrated into yellow powder at 700—1000C. On specimens obtained by vacuum-siliconizing, an oxide layer was formed which prevented the disintegration of the specimens. These results showed that the oxidation failure of homogeneous WSi_2 was not a specific property of the material but was caused by macrodefects (pores). In all cases, disintegration occurred in the temperature range where the oxidation products are not volatile. The oxidation behavior of poreless WSi_2 indicated that disintegration of porous WSi_2 specimens is as-

Card 1/2 UDC: 669.15.018.85

L 9441-66

ACC NR: AP5027137 O

sociated with the accumulation of oxidation products and the accompanying increase in volume. Orig. art. has: 3 figures. [MS]

SUB CODE: 11/ SUBM DATE: 20Oct64/ ORIG REF: 003/ OTH REF: 007/ ATD PRESS: 4154

Card 2/2 jw

AUTHOR: Yefimenko, L. N. (Kharkov); Verkhorodin, L. I. (Kharkov); Maryushenko, N. N. (Kharkov)

TITLE: The high-tungsten section of the tungsten-silicon phase diagram

[illegible]

fusion between tungsten and [illegible]. The [illegible] WSi$_2$ powder at 1500°C. The metal was completely converted to a single phase side by preparing [illegible] specimen [illegible] ter samples 2 and 10 mm in diameter were still [illegible] trix was formed. All experiments were carried out in a vacuum [illegible] X-ray analysis showed the presence of a W_5Si_3 phase. Analysis for the x-ray pattern

Card 1/2

L 65095-65
ACCESSION NR: AP5021503

of this phase is tabulated. It might be assumed that the necessary conditions for formation of the [illegible] in #5813 powder. [illegible] face of tungsten specimens after annealing at 1500°C for 34 hours. A comparison of x-ray patterns from the specimen and from the original metal shows a noticeable re- [illegible] situation in the Mg-Si system. [illegible]

ASSOCIATION: none

SUBMITTED: 28Apr64 ENCL: 00 SUB CODE: MM

NO REF SOV: 004 OTHER: 005

Card 2/2

YEFIMENKO, L. S.

YEFIMENKO, L. S. -- "Physicochemical Investigation of an Aqueous System of Sodium and Magnesium Sulfates According to Density, Viscosity, and Electrical Conductivity." Sub 27 Feb 52, Inst of General and Inorganic Chemistry, Acad Sci USSR. (Dissertation for the Degree of Candidate in Chemical Sciences).

SO; Vechernaya Moskva January-December 1952

ЕФИМЕНКО Л.С.

USSR/Physical Chemistry - Thermodynamics. Thermochemistry B-8
Equilibrium. Physicochemical Analysis. Phase Transitions

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3751

Author : Urazov G.G., Yefimenko L.S.
Title : Physicochemical Investigation of Binary Systems Water-Sodium Sulfate and Water-Magnesium Sulfate.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 1, 100-124

Abstract : Investigated were the viscosity η, specific conductance $\varkappa$ and density d of binary systems H_2O-$NaSO_4$ at 25 and 33° and H_2O-$MgSO_4$ at 25°. The results are compared with literature data. Experimentally determined isotherms of all the studied properties are devoid of specific points and can be considered either as portions of non-singular curves or as portions of branches of singular curves. By using the investigated systems as example it is shown that equations of Jones and Dol [transliterated] for η (relative) and also the equation of Onsager-Kohlrausch,

Card 1/3 - 99 -

USSR/Physical Chemistry - Thermodynamics. Thermochemistry. B-8
Equilibrium. Physicochemical Analysis. Phase Transitions

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3751

for $\varkappa$ are applicable to binary systems only in the region of low concentrations. Equations of Lattey [transliterated] and shidlovskiy are applicable only in the case of unsaturated solutions and do not fit the experimental data on $\varkappa$ of oversaturated solutions. The equation of property isotherm proposed by M.A. Reshetnikov (Izv. Sektora fiz.-khim. analiza IONKh AN SSSR, 1949, 19, 166) approximates to a sufficient degree the definition of variations of $\varkappa$, fluidity (φ) and d of aqueous solutions of electrolytes over the entire range of concentration. Noted is the certain deviation of values of φ, calculated in accordance with the equation of Reshetnikov, from the experimental data relating to φ of oversaturated solutions of Na_2SO_4. The causes of these deviations were not determined. It is shown that by means of the isotherm equation it is possible to evaluate, with a sufficient degree of

SEDEL'NIKOV, G.S.; YEFIMENKO, L.S.; SOLOV'YEV, V.K.; AZAROVA, Ye.I.; BUYNEVICH, D.V.; GREKOV, P.A.

Crystallization of potassium salts from evaporating Kara-Bogaz brine in lake No.5. Izv. AN Turk. SSR no.3:30-40 '58. (MIRA 11:9)

1.Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR i Institut khimii AN Turkmenskoy SSR.
(Kara-Bogaz-Gol (Gulf)--Potassium salts)

YEFIMENKO, L.S.; SOLOV'YEV, V.K.; SEDEL'NIKOV, G.S.

Conditions for the evaporation of concentrated Kara-Bogaz brines.
Izv. AN Turk. SSR no.4:20-28 '58. (MIRA 11:10)

1. Institut khimii AN Turkmenskoy SSR i Institut obshchey i neorganicheskoy khimii AN SSSR.
(Kara-Bogaz-Gol (Gulf)--Potassium salts)

YEFIMENKO, L.S.; ASHIROVA, A.; ATADZHANOV, A.

Obtaining sodium pyrosulfite by the sulfite-lime method. Izv. AN Turk.SSR. Ser. fiz.-tekh., khim. i geol. nauk no.2:24-29 '63. (MIRA 17:8)

1. Institut khimii AN Turkmenskoy SSR.

GOGOLEVA, T.Ya.; BOROMENSKIY, S.S.; Prinimali uchastiye: YEFIMENKO, L.Ya.; DEMENKO, Yu.V.; FEL'DMAN, R.L.

Thionaphthene distribution during the processing of the naphthalene fraction according to the drum-press flow sheet. Koks i khim. no.3:46-48 '64. (MIRA 17:4)

1. Ukrainskiy uglekhimicheskiy institut.

SOV/137-59-1-1567

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 208 (USSR)

AUTHORS: Svet, I. S., Yefimenko, L. Ye.

TITLE: A Method of Combined Hot and Cold Forming of Gears by Means of Special Rollers (Kombinirovannaya goryache-kholodnaya nakatka shesteren)

PERIODICAL: Byul. tekhn.-ekonom. inform. sov. nar. kh-va Khar'kovskogo ekonom. adm. r-na, 1958, Nr 1, pp 31-36

ABSTRACT: After numerous experiments a special rolling stands were designed for hot and cold forming of gears (G) (with an accuracy consistent with Technical Specifications), having a module (reciprocal of pitch diameter) of 5. A general view of a stand for hot forming of G's is given, and the kinematics of its operation are described. G blanks are heated by means of HF currents supplied by a 500-kw generator, through a transformer with a winding ratio of 1:18, to an induction heater of the sectorial-faceplate type. The technology of the process consists of the following steps: 1) Machining of the blank on a metal lathe; 2) hot forming of the G by special rollers; 3) pickling; 4) broaching of the hole; 5) turning down the G to specified outer

Card 1/2

A Method of Combined Hot and Cold Forming of Gears (cont.)

diameter; and 6) cold working of the G. The process of hot forming of a G requires 50 seconds and that of machining of the hole 15 seconds; operations of gear milling and shaving to standard specifications consume 420 seconds. Compared with milling of G's, the employment of the method of hot-and-cold forming of G's increases the productivity by a factor of 5; the cost of labor constitutes 20 kopecks per G, instead of one ruble, and the over-all saving achieved on each article amounts to ~6 rubles. After completion of the first five of the above steps on G's with a module of 5, fifteen milling and shaving machines at the plant are freed for some other operations. G's obtained by this method are characterized by greater strength and wear resistance.

P. G.

BOL'SHAKOV, Konstantin Vasil'yevich; VOROB'YEV, Sergey Aleksandrovich, dotsent, kand.tekhn.nauk; DYMSHITS, Mikhail Abramovich; YEFIMENKO, Leonid Yefimovich; ZEVLEVER, Mikhail Yeleazarovich; LYALYUK, I.P., red.; LIMANOVA, M.I., tekhn.red.

[Modernization of machine tools; experience of plants in Kharkov] Modernizatsiia metallorezhushchikh stankov; iz opyta khar'kovskikh zavodov. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1960. 163 p. (MIRA 13:12)

(Kharkov--Machine tools)

YEFIMENKO, L-Ye.

PHASE I BOOK EXPLOITATION SOV/5395

Bol'shakov, Konstantin Vasil'yevich, Sergey Aleksandrovich Vorob'-yev, Mikhail Abramovich Dymshits, Leonid Yefimovich Yefimenko, and Mikhail Yeleazarovich Zevlever

Modernizatsiya metallorezhushchikh stankov; iz opyta khar'kovskikh zavodov (Modernization of Metal-Cutting Machine Tools; From the Experience of Khar'kov Plants) [Khar'kov] Khar'kovskoye knizhnoye izd-vo, 1960. 163 p. Errata slip inserted. 3,600 copies printed.

Eds.: S. A. Vorob'yev, Candidate of Technical Sciences, Docent, and I. P. Lyalyuk; Tech. Ed.: M. I. Limanova.

PURPOSE: This book is intended for workers and technical personnel dealing with metal cutting.

COVERAGE: Experience gained by [technically] advanced Khar'kov enterprises in the modernization of lathes, vertical boring mills, planers and shapers, drilling machines, gear-cutting

Card ~~1/5~~

machines, grinding machines, and other metal-cutting machine tools is discussed. Concrete examples are given which demonstrate the economic effectiveness of equipment modernization. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

YeFIMENKO, N.N.

AUTHOR: None Given 113-58-7-22/25

TITLE: Inventions in the Automobile Industry (Izobreteniya v avtomobil'noy promyshlennosti)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 7, p 43 (USSR)

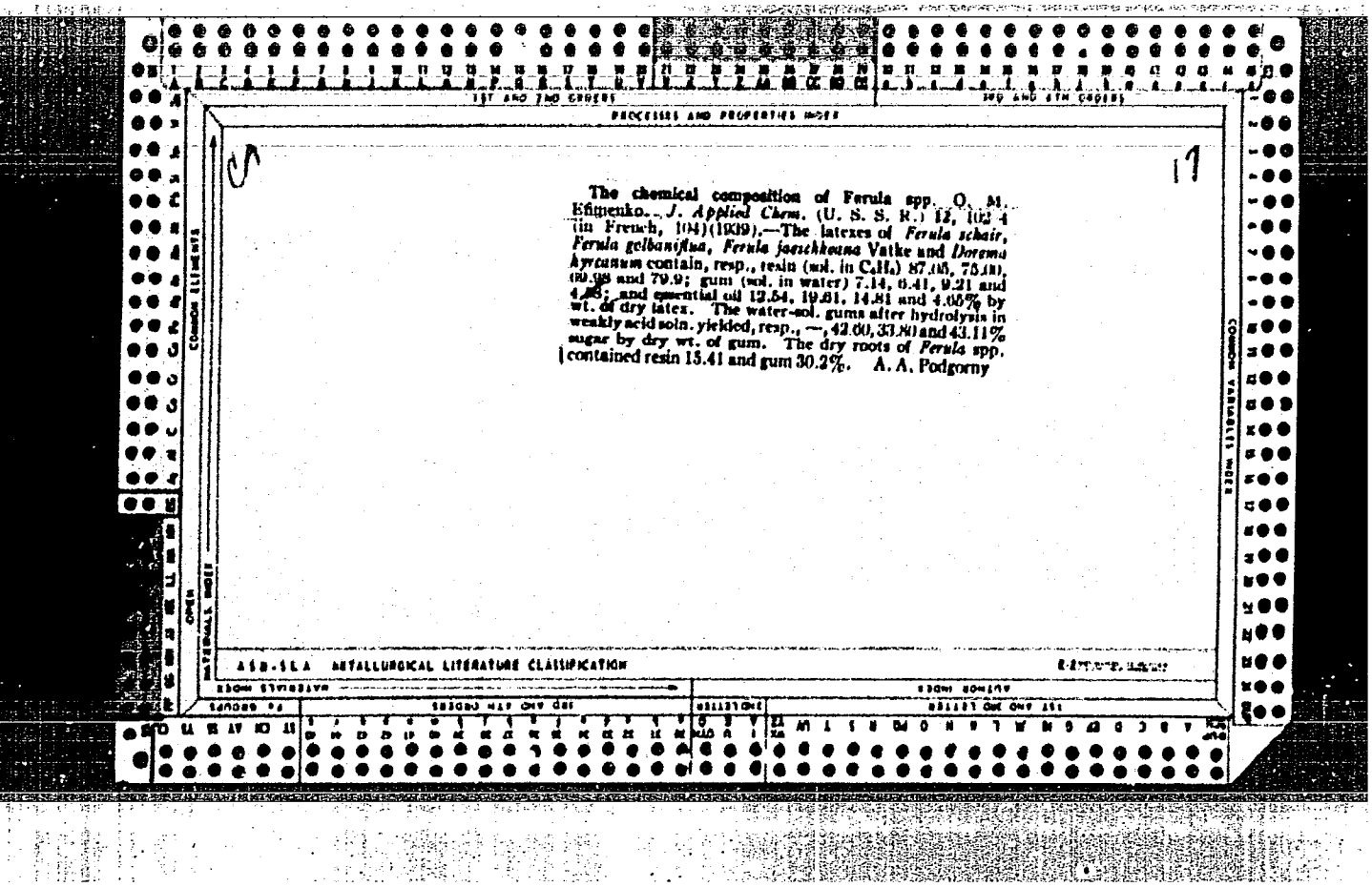
ABSTRACT: The Inventions and Discoveries Committee at the USSR Council of Ministers released authors' certificates on the following inventions of 1956-57: N.B. **Kanilevich** and N.N. Yefimenko, "An Automobile for the Transportation of Railway Containers and Other Loads"; Yu.B. **Belen'kiy,** "A Block Brake Mechanism"; N.A. Nikitin, D.I. Tylevich, "A Body of a Dump Truck for the Transportation of Building Material Solutions"; V.V. Burkov, "A Sectional Automobile Radiator"; I.T. Yefimenko, "A Spring Suspension for Automobiles and Other Mechanisms"; P.S. Fomin, "A Synchronizer with a Disk Gear for Transmissions"; L.V. Klubov, "A Hydromechanical Automatic Three-Stage Transmission"; G.M. Dekanozov, "An Apparatus for Dynamical Testings of Automobiles"; D.V. Breygin, "A Mechanical Transmission"; I.I. Ziberov, "A Stand for the Disassembly and Assembly of Automobile Tires"; D.V. Kozmenko, V.P. Kurunov, V.G. Palatko, A.A. Khalyavin, "An Automat for the Tilting of Cabins and Car Bodies on the Conveyor Belt"; P.V. Boguslavskiy, "A Combined Truck

Card 1/3

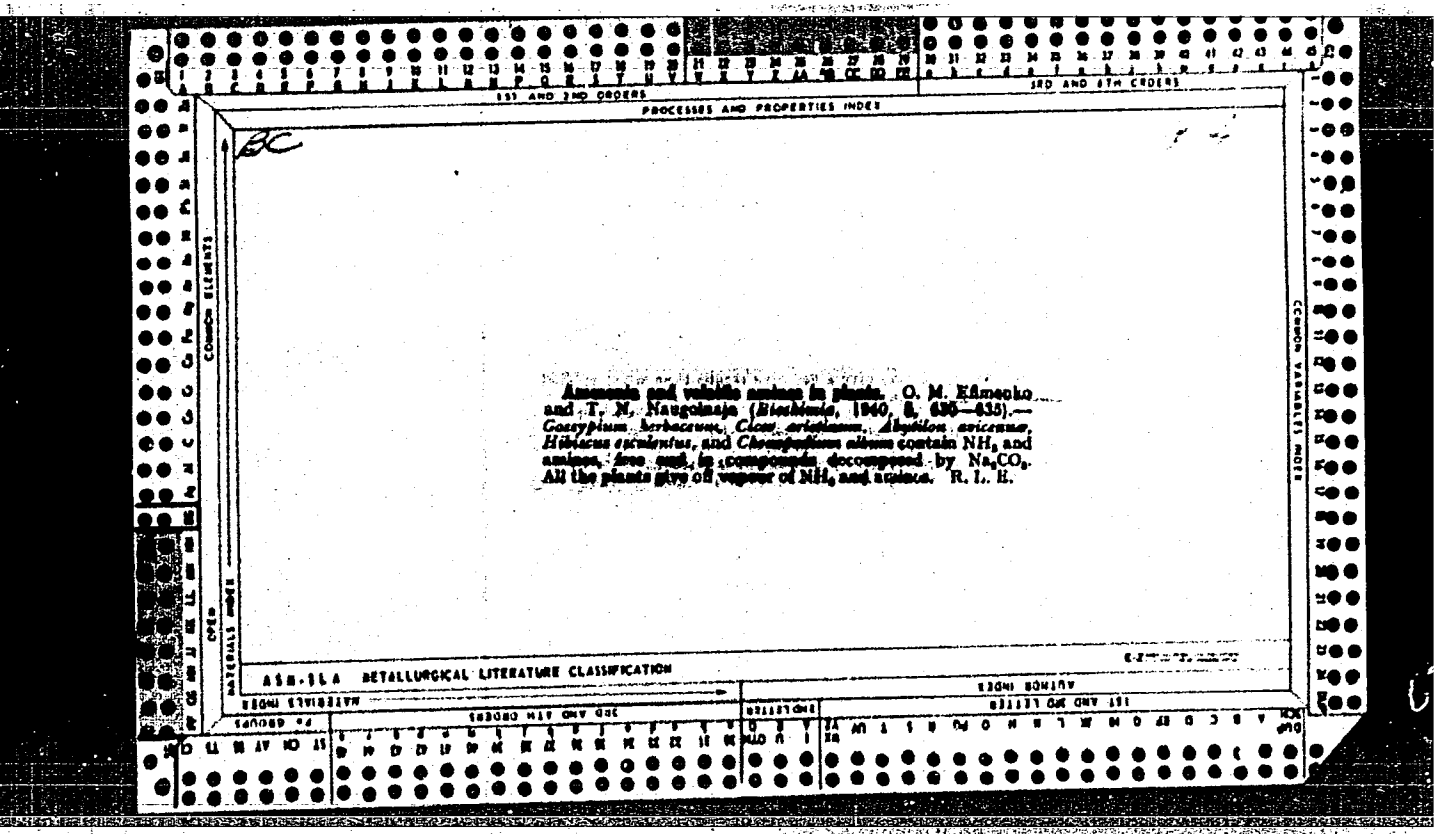
Body"; V.B. Tsimbalin, "A Stand for the Investigation of the Smooth Running of the Automobile and Testing of the Assembly Units and Parts for Durability"; V.B. Tsimbalin, "A Device for Tests of Automobiles with Respect to Smooth Running and Adjusting of New Automobiles in the Assembly Workshop"; Yu.B. Belen'kiy, " A Brake Crane for Automatic Automobile Brakes"; I.S. Izakson, B.I. Kharif, "A Stand for Checking the Brakes of Automobiles of All Types"; M.I. Lysov, "An Intensifier of the Steering Control of Automobiles with Progressive Reaction on the Steering Wheel"; N.B. Kapilevich, N.N. Yefimchenko, "An Automobile with a Hydraulic Lifting Crane"; V.A. Mushkin, "A Device for the Regulation of the Water Temperature in the Cooling System of the Automobile Engine"; M.I. Lysov, "A Pneumatic Intensifier of the Steering Control of the Automobile"; Yu.G. Sedykh, "The Gear Box"; V.D. Chistyakov, "A Device for the Washing of Motor and Tractor Parts"; N.G. Balakirev, "The Autotrailer"; P.D. Matyuk, A.I. Surykin, "A Detachable and Interchangeable Multi-Stage Contrivance of the Truck Body"; A.P. Krivshin, G.I. Pshenichnyy, "A Torsion Mechanism"; G.I. Azorevich, N.M. Riberg, "A Synchronizer of the Peripheral Speeds of the Cog Wheels for Gear Boxes with Gliding Cog Wheels"; B.I. Rabinkov, "A Planetary Transmission with a Double

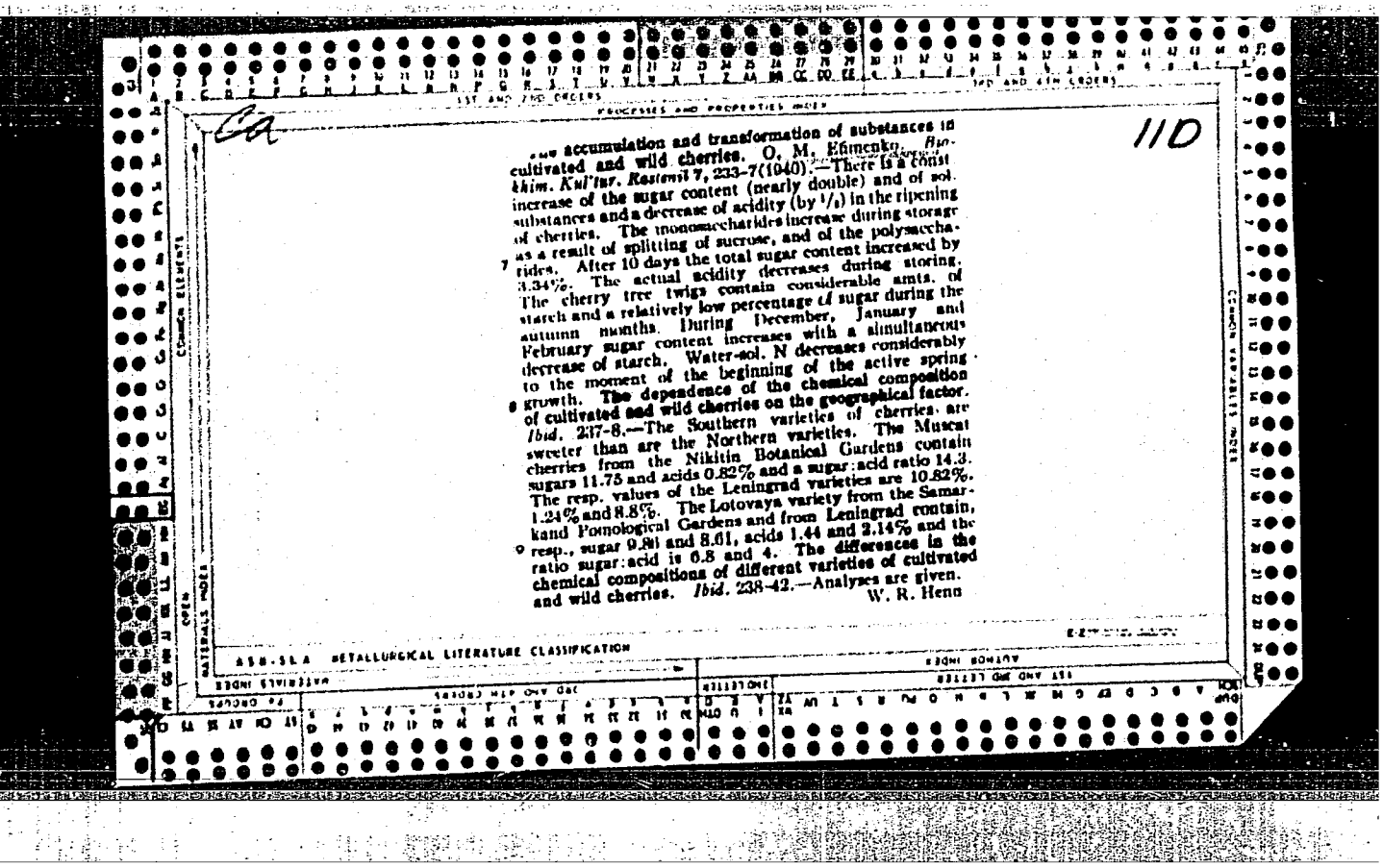
Power Supply"; D.T. Gapoyan, I.A. Kurzel', "A Hydromechanical Automatic Gear Box for the Automobile"; A.A. Romanov, "An Automatic Compensation of the Wear of Brake Linings"; A.N. Kolesnichenko, "A Universal Stand for Tests of the Lifting Mechanisms of Dump Trucks"; I.I. Ozherel'yev, "A Mechanism of Engaging the Springs of a Three-Axle Automobile"; V.N. Maslennikov, D.I. Ivanov, "A Washing Device for the Wind Screen of the Automobile, Autobus and Other Wheeled Vehicles"; M.I. Lysov, "A Method of Trying Out the Intensifiers of the Steering Control"; V.K. Sankidze, "A Device for the Stabilization of the Vertical Position of a Self-Propelled Mountain Vehicle in Motion Along Mountain Slopes; M.I. Lysov, "A Hydraulic Intensifier of the Steering Control of the Automobile".

1. Inventions--USSR 2. Automotive industry--USSR 3. Trucks--Equipment
4. Tractors--Equipment 5. Automobiles--Equipment



The chemical composition of Ferula spp. O. M. Efimenko. *J. Applied Chem.* (U. S. S. R.) 12, 102-4 (in French, 104)(1939).—The latexes of *Ferula schair*, *Ferula gelbanifina*, *Ferula foetchkeana* Vatke and *Dorema Aucheri* contain, resp., resin (sol. in C_6H_6) 87.05, 75.81, 80.98 and 79.9; gum (sol. in water) 7.14, 6.41, 9.21 and 4.08; and essential oil 12.84, 19.81, 14.81 and 4.05% by wt. of dry latex. The water-sol. gums after hydrolysis in weakly acid soln. yielded, resp., —, 42.00, 33.80 and 43.11% sugar by dry wt. of gum. The dry roots of *Ferula* spp. contained resin 15.41 and gum 30.2%. A. A. Podgorny





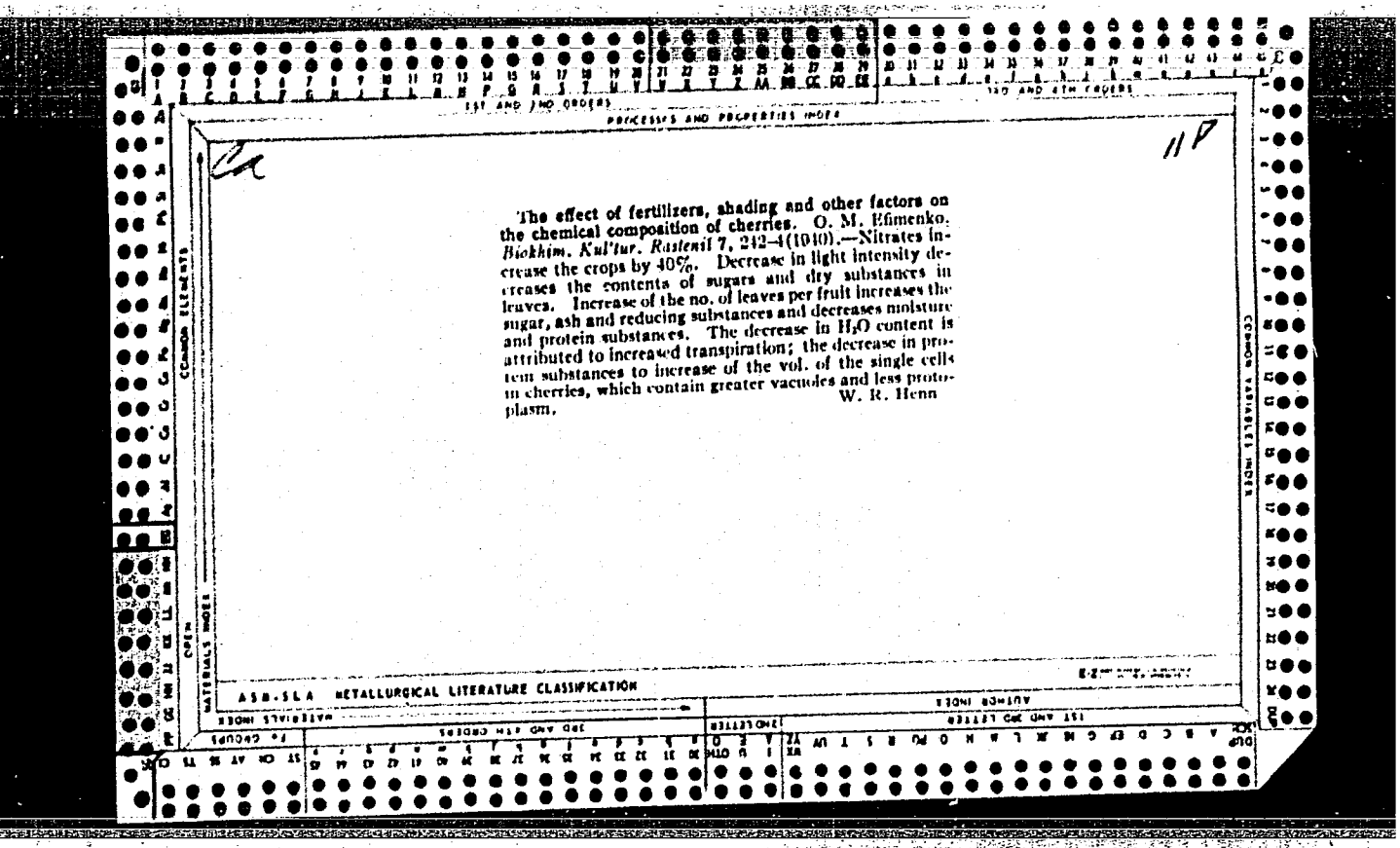
Ca

IID

...w accumulation and transformation of substances in cultivated and wild cherries. O. M. Efimenko. *Biokhim. Kul'tur. Rastenii* 7, 223–7(1940).—There is a const increase of the sugar content (nearly double) and of sol. substances and a decrease of acidity (by 1/3) in the ripening of cherries. The monosaccharides increase during storage as a result of splitting of sucrose, and of the polysaccharides. After 10 days the total sugar content increased by 3.34%. The actual acidity decreases during storing. The cherry tree twigs contain considerable amts. of starch and a relatively low percentage of sugar during the autumn months. During December, January and February sugar content increases with a simultaneous decrease of starch. Water-sol. N decreases considerably to the moment of the beginning of the active spring growth. The dependence of the chemical composition of cultivated and wild cherries on the geographical factor. *Ibid.* 217–8.—The Southern varieties of cherries are sweeter than are the Northern varieties. The Muscat cherries from the Nikitin Botanical Gardens contain sugars 11.75 and acids 0.82% and a sugar:acid ratio 14.3. The resp. values of the Leningrad varieties are 10.82%, 1.24% and 8.8%. The Lotovaya variety from the Samarkand Pomological Gardens and from Leningrad contain, resp., sugar 9.81 and 8.61, acids 1.44 and 2.14% and the ratio sugar:acid is 6.8 and 4. The differences in the chemical compositions of different varieties of cultivated and wild cherries. *Ibid.* 238–42.—Analyses are given.

W. R. Henn

A58-SLA METALLURGICAL LITERATURE CLASSIFICATION



The effect of fertilizers, shading and other factors on the chemical composition of cherries. O. M. Efimenko. *Biokhim. Kul'tur. Rastenii* 7, 242–4(1940).—Nitrates increase the crops by 40%. Decrease in light intensity decreases the contents of sugars and dry substances in leaves. Increase of the no. of leaves per fruit increases the sugar, ash and reducing substances and decreases moisture and protein substances. The decrease in H_2O content is attributed to increased transpiration; the decrease in protein substances to increase of the vol. of the single cells in cherries, which contain greater vacuoles and less protoplasm.

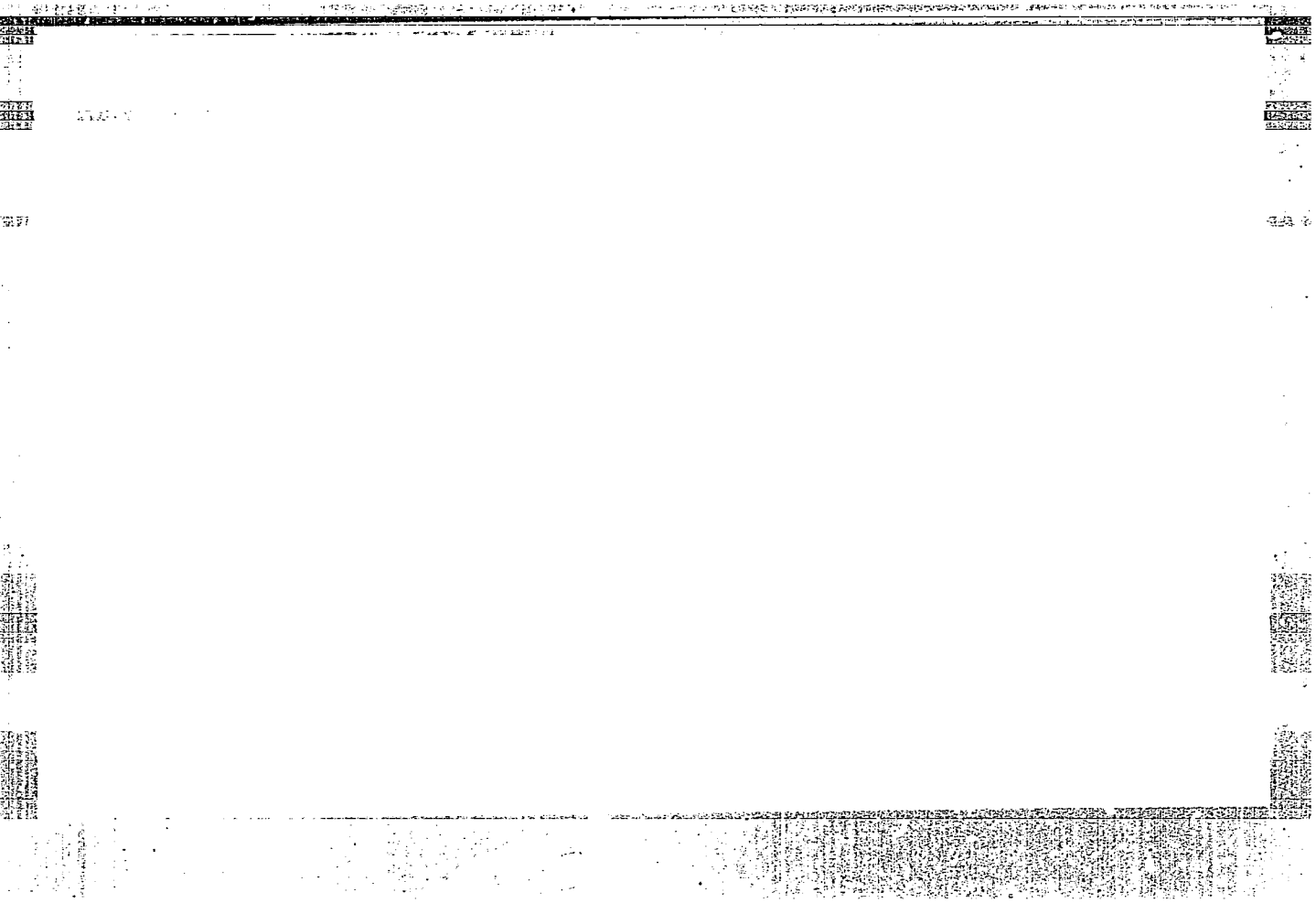
W. R. Henn

YEFIMENKO, O. M.

Yefimenko, O. M. "Problem of starch in plant growth," In symposium: Biokhimiya kul't. rasteniy, Vol. VIII, Moscow-Leningrad, 1948, p. 249-82 - Bibliog: p.280-82

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, N.3, 1949)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962320014-3"



APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962320014-3"

YEFIMENKO, O.M.

Physiologically active substances of the fungus Polyporus betulinus (Bull.) Karst. Mikrobiologiia 29 no. 4:548-550 Jl-Ag '60. (MIRA 13:10)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(FUNGI, WOOD-DECAYING) (POLYPORENIC ACIDS)
(GROWTH PROMOTING SUBSTANCES)

YEFIMENKO, O.M.; MEL'NIKOVA, T.A.; ZOZULYA, R.N.; KOSTYGOV, N.M.

Polyporenic acid A, an antibiotic from the fungus Polyporus betulinus (Bull) Karst. Antibiotiki 6 no.3:215-220 Mr '61. (MIRA 14:5)

1. Laboratoriya biokhimii nizshikh rasteniy (zav. - prof. P.A. Yakimov) Botanicheskogo instituta AN SSSR i kafedra farmakologii (zav. - prof. T.A.Mel'nikova) Leningradskogo khimiko-farmatsevticheskogo instituta.

(ANTIBIOTICS)

YAKIMOV, P.A., prof., otv. red.; YEFIMENKO, O.M., red.; LOVYAGINA, Ye.V., red.; NIZKOVSKAYA, O.P., red.; SHIVRINA, A.N., red.; BELKINA, M.A., red. izd-va; ZENDEL', M.Ye., tekhn. red.

[Comprehensive study of physiologically active substances of lower plants] Kompleksnoe izuchenie fiziologicheski aktivnykh veshchestv nizshikh rastenii. Moskva, Izd-vo Akad.nauk SSSR, 1961. 279 p. (MIRA 14:12)

1. Akademiya nauk SSSR. Botanicheskiy institut. 2. Laboratoriya biokhimii nizshikh rasteniy Botanicheskogo instituta im. V.L.Komarova AN SSSR (for Yakimov, Yefimenko, Lovyagina, Nizkovskaya, Shivrina).
(Harmones (Plants))

YEFIMENKO, O.M.; AGEYENKOVA, L.V.

Pigments of some polyporaceous fungi. Rast. res. 1 no.2:236-238 '65. (MIRA 18:11)

1. Laboratoriya biokhimii nizshikh rasteniy Botanicheskogo instituta imeni Komarova AN SSSR, Leningrad.

YEFIMENKO, O.M., otv. red.; NIZKOVSKAYA, O.P., red.; SHIVRINA, A.N., red.; YAKIMOV, P.A., red.

[Feed proteins and physiologically active substances for livestock farming; higher fungi as possible sources of their production] Kormovye belki i fiziologicheski aktivnye veshchestva dlia zhivotnovodstva; vysshie griby kak vozmozhnye istochniki ikh polucheniia. Moskva, Nauka, 1965. 126 p. (MIRA 19:1)

1. Akademiya nauk SSSR. Botanicheskiy institut. 2. Laboratoriya biokhimii nizshikh rasteniy Botanicheskogo instituta im. V.L.Komarova AN SSSR (for Yakimov, Shivrina).

IVANOV, Georgiy Vasil'yevich; YEFIMOV, O.S., red.; LAZAREVA, L.V., tekhn.red.

[Income distribution on collective farms] Raspredelenie dokhodov v kolkhozakh. Moskva, Izd-vo Mosk.univ., 1961. 41 p. (MIRA 14:3)
(Collective farms--Income distribution)

YEFIMENKO, P., polkovnik yustitsii

Take care of socialist property, it is the source of our country's strength and prosperity. Komm.Vooruzh.Sil 2 no.15:65-72 Ag '62. (MIRA 15:7)

(Russia—Armed forces)

YEFIMENKO, P.

Urgent needs of troop trade. Komm. Vooruzh. Sil 5 no.1; 50-56 Ja '65. (MIRA 18:3)

1. Inspektor Komiteta partiyno-gosudarstvennogo kontrolya TSentral'nogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza i Soveta Ministrov SSSR.

YEFIMENKO, Petr Petrovich.

[Primitive society; essays on the history of the paleolithic period] Pervobytnoe obshchestvo; ocherki po istorii paleoliticheskogo vremeni. Izd. 3., perer.i dop. Liev. Izd-vo Akademii nauk Ukr.SSR, 1953. 663 p. (MLRA 6:10)

1. Akademiya nauk Ukrainskoy SSR. (Society, Primitive)

YEFIMENKO P.P.

USSR/ Geology - Book review

Card 1/1 Pub. 46 - 16/19

Authors : Gromov, V. I.

Title : P. P. Yefimenko's book entitled, "Primeval World"

Periodical : Izv. AN SSSR. Ser. geol. 3, 158 - 159, May - Jun 1954

Abstract : Critical review is presented of P. P. Yefimenko's book entitled, "Primeval World," which describes the history of the paleolithic period.

Institution: .....

Submitted: February 13, 1954

YEFIMENKO, P.P.

EFIMENKO, P.P.

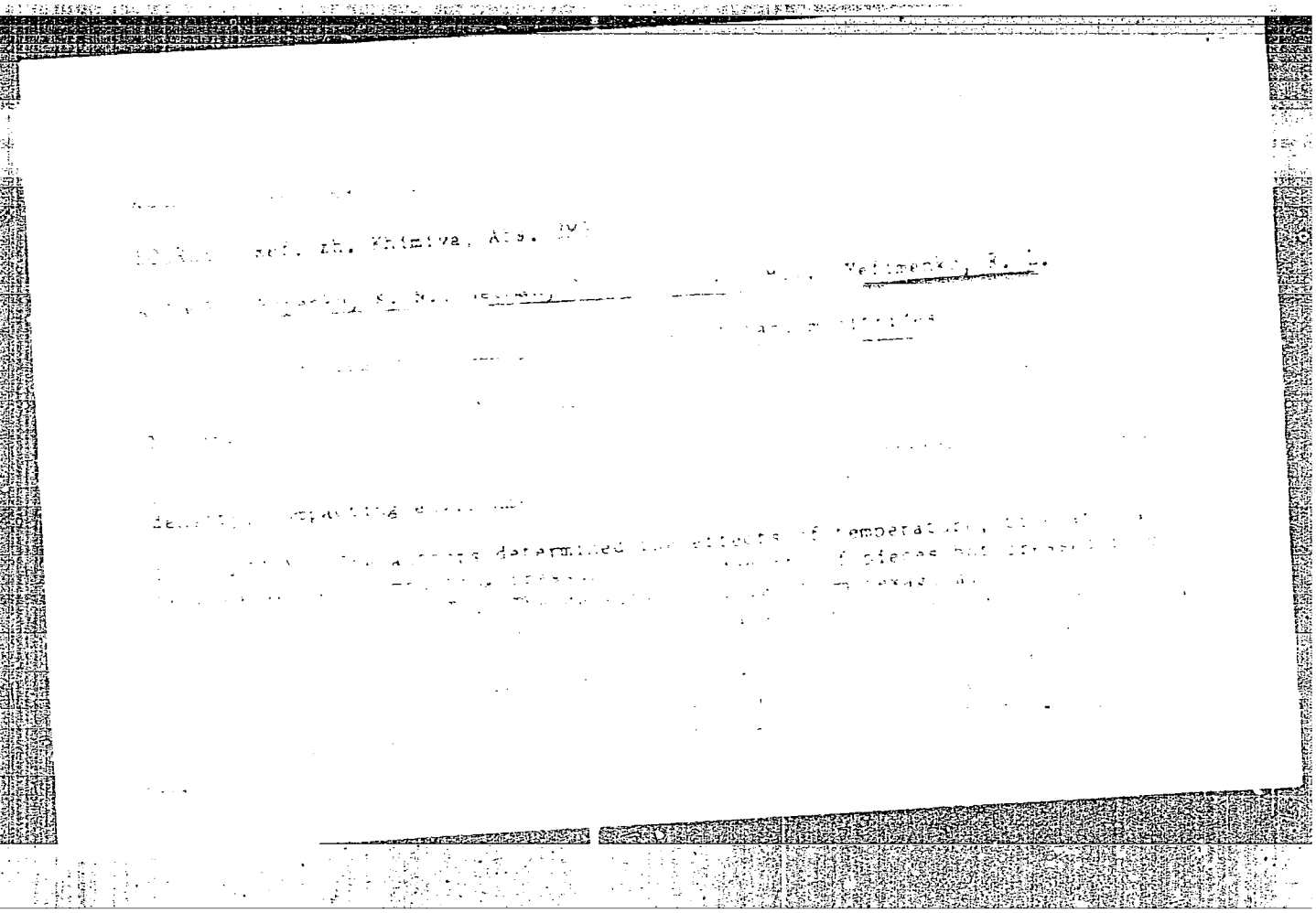
At the archaeological conference in Czechoslovakia. Visnyk AN URSR 26 no.2:30-38 F '55. (MLRA 8:4)

1. Diysniy chlen AN URSR.
(Prague--Archaeology--Congresses)

YEFIMENKO, P. P.

BORISKOVSKIY, P.I.; YEFIMENKO, P.P., otvetstvennyy redaktor; VIKTOROVA, L.L., redaktor izdatel'stva; KRUGLIKOVA, N.A., tekhnicheskiy redaktor

[Man in remotest antiquity] Drevneishee proshloe chelovechestva. Moskva, Izd-vo Akad.nauk SSSR, 1957. 221 p. (MLRA 10:8)
(Anthropology)



Card 2/2

ZYRIN, G., inzh.; YEFIMENKOV, R., inzh.; KHRUSTALEV, G., inzh.

"IUnost'" television receiver. Radio no.1:21-25 Ja '66.
(MIRA 19:1)

YEFIMENKO, S.P.

SOV/137-58-8-16826

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 85 (USSR)

AUTHORS: Starchenko, D.I., Kapustina, M.I., Gorenshteyn, M.M., Danilov, V.D., Savchenko, A.M., Yefimenko, S.P.

TITLE: Intensifying Breakdown Operations in Rolling Heavy Sheet (Intensifikatsiya rezhimov obzhatiya pri prokatke tolstykh listov)

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1957, Nr 4, pp 126-142

ABSTRACT: Experimental rolling (R) and study of existing breakdown schedules (B) for thick sheets of the major sizes, types, and grades of steel on the Nr-1 mill of the im. Il'ich plant make it possible to define the unused power and available energy of the mill during the initial period of R of 8.8x2095 mm and 10.8x2085 mm Nr-3 steel sheets, and also to determine unused biting capacity of the rolls. These factors are used to develop and recommend new, more intensive B schedules, envisaging a considerable increase in B during the first passes, with the present deformation ratios being retained essentially at the end of B. The B of sheets of different types and dimensions was performed in 21-23 passes as against 27-31 passes under the

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SOV/137-58-8-16826

Intensifying Breakdown Operations in Rolling Heavy Sheet

old B schedules, making it possible to reduce the R time for a single ingot and thus to raise the productivity of a three-high Lauth mill by 5-6% on the average.

A.N.

1. Steel--Processing 2. Sheets
3. Rolling mills--Performance

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SOV/137-58-12-24445

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 71 (USSR)

AUTHOR: Yefimenko, S. P.

TITLE: Certain Special Features of Change in Shape During Rolling in Angle Passes (Nekotoryye osobennosti formoizmeneniya pri prokatke v uglovykh kalibrakh)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Chernaya metallurgiya, 1958, Nr 3, pp 102-110

ABSTRACT: A coordinate grid is used to study changes in shape occurring in a 300-mm laboratory mill in the angle-pass rolling of Pb samples made of stamped and straightened square billets tinplated with technical Sn on all side faces and fused in a special jig to produce the coordinate grid. To roll a Nr-4 angle, square specimens of 34x34 mm cross section, made of 16 pieces, are used, while when a nonequilateral angle is to be rolled rectangular samples of 29x40 mm, made up of 15 pieces, are employed. It is established that when the sample is fed diagonally into the first angular pass, deformation spreads from the bottom groove, and the metal layers at the inside bases of the flanges show an increase in width. If the nonequilateral

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Zhdanov Metallurgical Inst.

Certain Special Features of Change in Shape During Rolling in Angle Passes (cont.)

leader and finishing grooves are on rolls with equal vertical projections, a further shift in the profile elements of the apex occurs, leading to a rise in roll wear. The spread of the sample in the first pass with diagonal feed is small and involves a deformation similar to upsetting. In this system of grooving, samples in which B/H=1.41 were held well in the rolls, in the R of nonequilateral angles, while when B/H=1.7-1.75, they were twisted around.

V. D.

STARCHENKO, D.I., doktor tekhn.nauk, prof.; KAPUSTINA, M.I., kand.tekhn.nauk, dotsent; GORENSHTEYN, M.M., kand.tekhn.nauk, dotsent; DANILOV, V.D., inzh.; SAVCHENKO, A.M., inzh.; YEFIMENKO, S.P., inzh.

Investigating deformation conditions in plate rolling. Izv. vys. ucheb. zav.; chern.met. no.5:121-129 My '58. (MIRA 11:7)

1.Zhdanovskiy metallurgicheskiy institut.
(Deformations (Mechanics)) (Rolling (Metalwork))

S/137/61/000/002/008/046
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 2, p. 4, # 2D31

AUTHORS: Kapustina, M.I., Danilov, V.D., Yefimenko, S.P., Savchenko, A.M. and Mezhaurov, M.M.

TITLE: Improved Reduction Conditions on a Reversing Thick-Sheet Mill at Insufficient Power of the Main Motor

PERIODICAL: "Sb.nauchn.tr.Zhdanovsk. metallurg. in-t", 1960, No.5, pp.257-263

TEXT: The authors analyze factors determining the permissible reduction in the rolling of sheets and plates on a reversing 1,200x4,450 mill. It is established that the factor, limiting the reduction, is insufficient power of the drive motor. Under these conditions it is recommended to perform the metal grip by the rolls not at the time of speeding-up the motor, which requires the expenditure of the dynamical torque component, but after the rolls have attained the rated rotation speed; to accelerate the speed of rolls the time of pauses should be used..

Ya. Sh.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

YEFIMENKO, S.P.; KAPLANOV, V.I.

Defects in sheet cut on a transverse cutting unit. Metallurg 10 no.3:31 Mr '65. (MIRA 18:5)

1. Zamestitel' nachal'nika tsekha kholodnoy prokatki zavoda im. Il'icha (for Yefimenko). 2. Nachal'nik tekhnicheskogo byuro zavoda im. Il'icha (for Kaplanov).

YEFIMENKO, S.P.; KAPLANOV, V.I.

Mastering the operation of high-speed four-stand mills for cold rolling. Metallurg 10 no.8:26-27 Ag '65. (MIRA 18:8)

YEFIMENKO, T.

YEFIMENKO, T.

[Efficiency experts in agricultural production; a collection] Ratsionalizatory sel'skokhoziaistvennogo proizvodstva; sbornik. [Saratov] Saratovskoe knizhnoe izd-vo, 1956. 107 p. (MIRA 10:12)
(Agricultural machinery)

YEFIMENKO, T.A., kand. tekhn. nauk, red.; LOGVINOV, M., red.; LUKASHE-VICH, V., tekhn. red.

[Handbook for the tractor operator] Spravochnik traktorista. Pod red.T.A.Efimonko. Saratov, Saratovskoe knizhnoe izd-vo, 1961. 351 p. (MIRA 14:12)

(Tractors—Handbooks, manuals, etc.)

YEFIMENKO, Trifon Alekseyevich, dots.; MAKAROV, Konstantin Ivanovich, assistent [deceased]; PANOV, V., red.; MOKROUSOVA, A., tekhn. red.

[Manual on the overall mechanization of chemical protection of plants] Kompelksnaia mekhanizatsiia khimicheskoi zashchity rastenii; spravochnik. Saratov, Saratovskoe knizhnoe izdvo, 1963. 95 p. (MIRA 17:3)

YEFIMENKO, T.M.

KUZ'MENKO, M. V.; EFIMENKO, T. M.

Poltava Province - Wheat

New high-yield varieties of winter wheat for Poltava Province. Dost. sel'khoz. No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

COUNTRY : USSR
CATEGORY : Cultivated Plants. Grains. Leguminous Grains. Tropical Cereals.
ABS. JOUR.: Ref Zhur -Biologiya, No. 5, 1959, No. 20 211

Author : Kuz'menko, M.V.; Yefimenko, T.M.
INST. : Kharkov University
TITLE : Results of Winter Wheat Selection in Veselopodlyansk Selection Station.

ORIG. PUB.: V. sb.: Vopr. metodiki selektsii pshenitsy i kukuruzy, Khar'kov, Un-t, 1957, 29-39

ABSTRACT : During the last few years the varieties Veselopodolyanskaya 499 and Veselopodolyanskaya 10 were bred which are resistant to leaf rust, to lodging and drought; in winter resistance they approach Lenostepka 75. In a comparative test on 11 plots in the years 1951-1955, Veselopodolyanskaya 449 yielded 29.7 to 45.3 cwt/ha, surpassing Lesostepka by 5-10.8 cwt/ha In 1955 on 6 variety plots it produced after black fallow 39.5-55 cwt/ha, on a cover and

CARD : 1/2

YEFIMENKO, V.

SHEVALEV, V.; YEFIMENKO, V., redaktor; MOGILETSKIY, B., tekhnicheskiy redaktor

[Professor Nalivkin; sketch of Odessa's oldest physician] Professor Nalivkin; ocherk o stareishem vrache Odessy. [Odessa] Odesskoe obl. izd-vo, 1955. 41 p. (MLRA 10:8)
(NALIVKIN, PAVEL ALEKSEEVICH, 1876-)

16(1) PHASE I BOOK EXPLOITATION SOV/2061

Baranenkov, G. S., Boris Pavlovich Demidovich, V. A. Yefimenko, S. M. Kogan, G. L. Lunts, Ye. F. Porshneva, Ye. P. Sycheva, S. V. Frolov, R. Ya. Shostak, and A. R. Yanpol'skiy

Zadachi i uprazhneniya po matematicheskomu analizu dlya vtuzov (Problems and Exercises in Mathematical Analysis for Vtuzes) Moscow, Fizmatgiz, 1959. 472 p. 40,000 copies printed.

Ed. (Title page): Boris Pavlovich Demidovich; Tech. Ed.: K. F. Brudno; Ed. (Inside book): N. A. Ugarova.

PURPOSE: This book is approved by the USSR Ministry of Higher Education as a textbook for students of vtuzes, especially correspondence students and evening students specializing in mechanical engineering. It may also be used for independent study.

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Problems and Exercises in Mathematical (Cont.) SOV/2061

COVERAGE: The book is a collection of 3193 problems on higher mathematics (excluding analytic geometry) arranged in systematic order for vtuzes. At the beginning of each chapter a short theoretical introduction, necessary formulas, and solutions of more important typical problems are given. Answers are given for all problems, and for the more complicated ones hints and drawings are provided, making the book more useful to correspondence students. The authors give special attention to the more important parts of the subject, such as, calculation of limits, differentiation and integration technique, construction of graphs, application of differential and integral calculus, series, and solution of differential equations. Chapters covering these subjects, therefore contain more problems than the others. The authors thank Docent S. N. Kuz'min, Docent Ye.A. Lubny-Gertsyk, instructors N. V. Sakharov, G. V. Tolstova, and L. Z. Yudelevich, Professor A. P. Yushkevich, Docent I. N. Bronshteyn, Ye. A. Soboleva, the Moskovskiy energeticheskiy institut (Moscow Institute of Energetics) Vsesoyuznyy zaochnyy inzhenerno-stroitel'nyy insitut (All-Union Civil Engineering Correspondence Institute), Docent R. S. Guter, and N. A. Ugarova, editor of Fizmatgiz, for help in preparing the book. There are no references.

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